

REMARKS

This responds to the Advisory Action dated on December 11, 2007. Claims 1, 11, 16, 22, 26, 41, and 44-45 are amended, claims 5, 12-13, 18-19, 28-40, and 43 are canceled, and no claims are added; as a result, claims 1-4, 6-11, 14-17, 20-27, 41-42, and 44-46 are now pending in this application.

§103 Rejection of the Claims

Claims 1, 2, 5, 7, 9-12, 14, 16-18, 20, 22-25, 41, 42, 44 and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Jackson et al. (U.S. Patent No. 5,013,366) in view of Tipton et al. (U.S. Patent No. 6,800,142). Applicant respectfully submits that the claims are not obvious for at least the following reasons.

The rejection states that Jackson teaches "cleaning contaminated substrate (col.7, lines 3-5) comprising suspending substrate in a liquid suspension medium (reads on "a carrier fluid" as claimed), such as deionized water." The rejection further states that "Jackson teaches a mixture of gasses for producing densified/supercritical fluids wherein the mixture includes carbon dioxide and a halogenated hydrocarbon."

However, Jackson does not show a halogenated hydrocarbon carrier fluid in an amount sufficient to immerse the semiconductor surface. When used as a carrier fluid as recited in the claims, Applicant respectfully submits that the halogenated hydrocarbon is being used in a different context and performing a different function and as such is not anticipated or obvious. In contrast, independent claims 1, 11, 16, 22, and 41 as amended include a halogenated hydrocarbon carrier fluid in an amount sufficient to immerse the semiconductor surface.

The rejection further states that Tipton illustrates that use of halogenated hydrocarbons within densified/supercritical fluids to enhance removal of photoresist is conventionally known in the art.

Tipton appears to recite an small amounts of additives of 0-15% by weight with listed additives being acetonitrile, ethanol, methanol, isopropanol, tetrahydrofuran, methylene chloride, chloroform, 1,2-dichloroethane, diethyl ether, hexane, toluene, benzene, xylene, tertiary butyl methyl ether, 1,4-dioxane, 1,2-diethoxyethane, 1,2-dimethoxyethane, ethylene glycol, propylene

glycol, ethyl lactate, acetic acid, trifluoroacetic acid, dimethylacetimide, N-methylpyrrolidinone, dimethyl formamide, dimethyl ethanolamine. However, Applicant is unable to find in Tipton any reference to additive in amounts sufficient to immerse a semiconductor surface. Applicant respectfully submits that Tipton therefore does not cure the deficiencies of Jackson as outlined above. As taught in Applicant's specification, amounts sufficient to immerse a semiconductor surface permit gas bubble formation to enhance cleaning.

Applicant respectfully submits that because neither Jackson nor Tipton disclose amounts as discussed above sufficient to immerse a semiconductor surface. Therefore, Applicant respectfully submits that a combination of the references does not teach such a configuration. Because the cited references, either alone or in combination, do not show every element of Applicant's independent claims, a 35 USC §103(a) rejection is not supported by the references. Reconsideration and withdrawal of the rejection are respectfully requested.

PRELIMINARY AMENDMENT

Serial Number: 10/681,481

Filing Date: October 8, 2003

Title: METHOD OF CLEANING SEMICONDUCTOR SURFACES

Page 9

Docket No: 1303.112US1

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6944 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully Submitted,

SCHWEGMAN, LUNDBERG & WOESSNER, P.A.

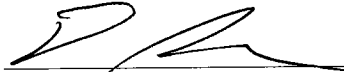
P.O. Box 2938

Minneapolis, MN 55402

(612) 373-6944

Date 12-26-07

By



David C. Peterson

Reg. No. 47,857

CERTIFICATE UNDER 37 CFR § 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 26 day of December 2007.

Name

LISA BROWN

Signature

Lisa Brown